

**REMARKS**

This Amendment is responsive to the Office Action mailed on August 16, 2004. Entry of this Amendment and reconsideration of the instant application in view thereof are respectfully requested.

Assuming entry of the amendments to the claims set forth in this Amendment, the status of the claims is as follows:

<b>Currently Amended:</b>	1, 4-6 and 10
<b>Cancelled:</b>	7-8
<b>New:</b>	11-12
<b>Pending:</b>	1-6 and 9-12

**Claims**

Claims 1-10 were pending. Claims 1-10 stand or stood rejected.

Claims 7-8 have been canceled without prejudice or disclaimer of the subject matter contained therein.

Claims 1, 4-6 and 10 have been amended to more clearly define the invention and new claims 11-12 have been added. No new matter is added.

It is believed that entry of this Amendment will not require any additional claim fees. Notwithstanding, Applicant hereby authorizes the Commissioner to charge any additional claim fees deemed required for entry of this amendment to Deposit Account No. 18-1850.

**Support**

Support for the amendments to the claims is either apparent or as set forth herein.

Support for the recitation "adding a solvent" may be found in the specification at, for example, the third full paragraph on page 6 and the paragraph bridging pages 6 and 7. Support for the recitation "wherein the reactants comprise monomers selected from alkyl (meth)acrylates, alicyclic (meth)acrylates, (meth)acrylamides, vinyl acetates, alkenyl (meth)acrylates, aryl (meth)acrylates, alkylaryl (meth)acrylates, amine containing (meth)acrylates, phosphorous containing (meth)acrylates, sulfur containing (meth)acrylates, vinyl aromatic monomers, (meth)acrylic acid, substituted ethylene monomers and combinations thereof; wherein the reactants also comprise a crosslinker;" may be found in the specification at, for example, the paragraph bridging pages 7 and 8. Support for the recitation "wherein said polymeric

nanoparticles have a mean particle diameter of from 1 to 50 nm" may be found in the specification at, for example, the second paragraph on page 3. Support for the recitation "wherein the process is emulsion free and wherein the process yields a solids level of polymeric nanoparticles equal to or greater than 45 weight %" may be found in the specification at, for example, the paragraph bridging pages 4 and 5 and Examples 2 and 4. Support for the recitation "wherein the time interval is 30 seconds to 8 hours" may be found in the specification at, for example, the first paragraph on page 4. Support for new claim 11 may be found in the specification at, for example, the second full paragraph on page 6. Support for new claim 12 may be found in the specification at, for example, the third full paragraph on page 6. No new matter is added.

#### Claim Rejections under 35 USC §§ 102 & 103

Claims 1-9 stand or stood rejected under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 6,586,097 (Pascault et al.). Without conceding the validity of any of the assertions proffered by the Examiner, Applicants have elected to amend the claims to more clearly define the invention.

Applicants respectfully note that Pascault et al. does not teach or disclose a method for producing polymeric nanoparticles wherein the process yields a solids level of polymeric nanoparticles equal to or greater than 45 weight %. Applicants respectfully point out that in Example 1, Pascault et al. discloses a process wherein "the conversion of the monomers is greater than 95%." The solids content provided by the process disclosed in Example 1, however, would be less than 25 wt% based on the mass of monomers and solvent added to the reactor. That is, 94 g of n-heptane and 93.5 g of 2-propanol were added to the reactor in Example 1 to give a total of 187.5 g of solvent. A mixture of 62.3 g of monomers was then added to the solvent giving a total reaction mass of ~249.8 g. Assuming a 100% conversion of reactants, the process would give less than 25 wt% solids content in the final product before distilling off the synthesis solvents (i.e.  $62.3/249.8 * 100\% = \sim 24.9$ ). Accordingly, Pascault et al. does not teach, disclose or suggest the invention encompassed by the claims, as amended. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1-10 stand or stood rejected under 35 U.S.C. § 102 as anticipated by, or in the alternative, under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 4,894,339 (Rody et al.).

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Without conceding the validity of any of the assertions proffered by the Examiner, Applicants have elected to amend the claims to more clearly define the invention.

Applicants respectfully note that Rody et al. disclose "light-stabilized polymer microparticles having a particle size distribution of 0.01-20  $\mu\text{m}$ ". It is not clear from the teachings of Rody et al. that the Rody et al. process would enable production of particles having a mean particle diameter of 1 to 50 nm. Moreover, Rody et al. does not teach, disclose or suggest a process that yields a solids level of polymeric nanoparticles equal to or greater than 45 weight %. Accordingly, Rody et al. does not teach, disclose or suggest the invention encompassed by the claims, as amended. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1-10 stand or stood rejected under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 6,437,050 (Krom et al.). Without conceding the validity of any of the assertions proffered by the Examiner, Applicants have elected to amend the claims to more clearly define the invention.

Applicants respectfully note that Krom et al. does not teach, disclose or suggest a process that yields a solids level of polymeric nanoparticles equal to or greater than 45 weight %. Rather, as exemplified by the Examples provided by Krom et al., the Krom et al. process yields significantly less than 45 weight % solids. Examples 1 through 3 of Krom et al. each use essentially the same process. Examples 2 and 3 report a weight % solids yield of 18% and 11%, respectively. (see col. 5, line 25 through col. 6, line 30). Moreover, Krom et al. discloses a process for making core shell type block copolymers including a poly(alkenylbenzene) core and a surface layer including poly(conjugated diene). (see, e.g., abstract and col. 2, lines 1-10). Krom et al. does not teach, disclose or suggest the preparation of polymeric nanoparticles from reactants as recited in claim 1, as amended. Accordingly, Krom et al. does not teach, disclose or suggest the invention encompassed by the claims, as amended. Reconsideration and withdrawal of this rejection are respectfully requested.

Claim 10 stands rejected under 35 U.S.C. § 103 as unpatentable over Pascault et al. (U.S. Patent No. 6,586,097). Without conceding the validity of any of the assertions proffered by the Examiner, Applicants have elected to amend the claims to more clearly define the invention.

Applicants respectfully note that Pascault et al., *inter alia*, does not teach or disclose a method for producing polymeric nanoparticles wherein the process yields a solids level of

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polymeric nanoparticles equal to or greater than 45 weight %. Applicants respectfully point out that in Example 1, Pascault et al. discloses a process wherein "the conversion of the monomers is greater than 95%." The solids content provided by the process disclosed in Example 1, however, would be less than 25 wt% based on the mass of monomers and solvent added to the reactor. That is, 94 g of n-heptane and 93.5 g of 2-propanol were added to the reactor in Example 1 to give a total of 187.5 g of solvent. A mixture of 62.3 g of monomers was then added to the solvent giving a total reaction mass of ~249.8 g. Assuming a 100% conversion of reactants, the process would give less than 25 wt% solids content in the final product before distilling off the synthesis solvents (i.e.  $62.3/249.8 * 100\% = \sim 24.9$ ). Accordingly, Pascault et al. does not teach, disclose or suggest the invention encompassed by the claim 10, as amended. Reconsideration and withdrawal of this rejection are respectfully requested.

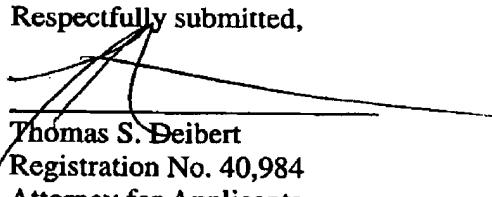
#### Closing Remarks

Applicants thank the Examiner for the Office Action and believe this response to be a full and complete response to such Office Action. Accordingly, favorable reconsideration and allowance of the pending claims are earnestly solicited.

#### FEE DEFICIENCY

- If an extension of time is deemed required for consideration of this Amendment, please consider this Amendment to comprise a Petition for such an extension of time; The Commissioner is hereby authorized to charge the fee for any such extension to Deposit Account No. 18-1850.  
**and/or**
- If any additional fee is deemed required for consideration of this Amendment, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 18-1850.

Respectfully submitted,

  
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